

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11) EP 1 431 267 A1

(12)

EUROPEAN PATENT APPLICATION published in accordance with Art. 158(3) EPC

(43) Date of publication: 23.06.2004 Bulletin 2004/26

(21) Application number: 02755874.1

(22) Date of filing: 08.08.2002

(51) Int CI.7: **C07C 57/40**, C07C 57/44, C07C 69/736, C07C 229/34, C07C 233/47, C07C 233/55, C07C 233/65, C07C 233/81, C07C 235/42, C07C 235/46, C07C 235/48, C07C 235/54, C07C 235/56, C07C 237/30, C07C 239/18

(86) International application number: PCT/JP2002/008120

(87) International publication number: WO 2003/016254 (27.02.2003 Gazette 2003/09)

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
IE IT LI LU MC NL PT SE SK TR

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 09.08.2001 JP 2001241867

(71) Applicant: ONO PHARMACEUTICAL CO., LTD. Osaka-shi, Osaka 541-8526 (JP)

(72) Inventors:

 TANI, Kousuke Mishima-gun, Osaka 618-8585 (JP) ASADA, Masaki
 Mishima-gun, Osaka 618-8585 (JP)

 KOBAYASHI, Kaoru Mishima-gun, Osaka 618-8585 (JP)

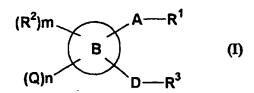
 NARITA, Masami Mishima-gun, Osaka 618-8585 (JP)

 OGAWA, Mikio Mishima-gun, Osaka 618-8585 (JP)

(74) Representative: Henkel, Feiler & Hänzel Möhlstrasse 37 81675 München (DE)

(54) CARBOXYLIC ACID DERIVATIVE COMPOUNDS AND DRUGS COMPRISING THESE COMPOUNDS AS THE ACTIVE INGREDIENT

(57) A carboxylic acid derivative of formula (I):



wherein R¹ is -COOH, -COOR6, etc.; A is a single bond, alkylene, etc.; R² is alkyl, alkoxy, etc.; B is a carbocyclic ring or a heterocyclic ring; Q is alkylnene-Cyc2, etc.; D is a linking chain; and R³ is alkyl, a carbocyclic ring or a heterocyclic ring, or a non-toxic salt thereof. The compound of formula (I) binds to PGE₂ receptor, especially subtypes EP₃ and/or EP₄ and show the antagonizing activity, are useful for the prevention and/or treatment of diseases induced pain, itch, urticaria, allergy, urinary frequency, urinary disturbance, Alzheimer's disease, cancer, dysmenorrhea, endometriosis, etc.